

**INTERFERENCE-AIDED NAVIGATION WITH CYCLIC JAMMER  
CANCELLATION**

**ABSTRACT OF THE DISCLOSURE**

An interference-aided signal acquisition and tracking system includes a vehicle, an interference detector, a noise canceller, and a signal processor. The vehicle has at least two receivers configured to detect external signals and the at least two receivers have an output dependent on attitude of the vehicle. The interference detector measures the output of at least one of the at least two receivers. The noise canceller combines the output of the at least two receivers. The signal processor extracts a desired signal from the output of the noise canceller. The output of the interference detector is used to control the noise canceller as to reject unwanted signals and enhance performance of the signal processor in extracting the desired signal.